

WHAT IS CLAIMED IS:

1. A method of driving an Alternating Current (AC) Plasma Display Panel (PDP) including a plurality of  
5 discharge cells each of which has a scan electrode, a sustain electrode and an address electrode by applying drive signals to said electrodes, in which, in order to display image information on the AC PDP, one frame of the image information is divided into a plurality of sub-  
10 frames and each of the sub-frames includes a reset period, an address period and a sustain period, comprising the steps of:

applying a drive signal including a plurality of successive short pulses in the reset period;

15 addressing at least a part of said discharge cells by applying data pulses to at least a part of said electrodes to enable selective discharge of said discharge cells according to said image information in the address period;

wherein, during the reset period, said plurality of  
20 short pulses form a plurality of discharges each duration of which is limited; and

wherein a standardized wall charge is formed in each of the discharge cells due to the plurality of discharges so that the selective discharge is easily generated by  
25 application of data pulses during the address period.

2. The method as set forth in claim 1, wherein the magnitude of the wall charge is controlled by controlling the heights, and/or widths and/or periods of the short  
30 pulses.

3. The method as set forth in claim 1, wherein each of the discharges due to the short pulses is generated in

the duration time of each of the short pulses and turned off by falling of the each of the short pulses so that the wall charge is accumulated in the discharge cells.

5        4. The method as set forth in claim 1, wherein each of the discharges due to the short pulses is generated in the interval of each of the short pulses and turned off by rising of the each of the short pulses so that at least a part of wall charge is erased in the discharge cells.

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5. The method as set forth in claim 1, wherein the short pulses are applied to the scan electrodes of the AC PDP.

15        6. The method as set forth in claim 1, wherein, the drive signal during the reset period includes a plurality of short pulses superposed upon a bias voltage increasing or decreasing with time.

20        7. The method as set forth in claim 1, wherein, the drive signal during the reset period includes a plurality of short pulses superposed upon a staircase waveform increasing or decreasing with time.

25        8. A method of driving an Alternating Current (AC) Plasma Display Panel (PDP) including a plurality of discharge cells each of which has a scan electrode, a sustain electrode and an address electrode by applying drive signals to said electrodes, in which, in order to  
30 display image information on the AC PDP, one frame of the image information is divided into a plurality of sub-frames and each of the sub-frames includes a reset period, an address period and a sustain period, comprising the

steps of:

accumulating wall charge in the discharge cells during the reset period;

erasing at least a part of the accumulated wall charge, during the reset period, by successively generating a plurality of discharges each duration of which is limited, so that stable data write operation is performed in the address period; and

addressing at least a part of said discharge cells by applying data pulses to at least a part of said electrodes to enable selective discharge of said discharge cells according to said image information in the address period.

9. A method of driving an Alternating Current (AC) Plasma Display Panel (PDP) including a plurality of discharge cells each of which has a scan electrode, a sustain electrode and an address electrode by applying drive signals to said electrodes, in which, in order to display image information on the AC PDP, one frame of the image information is divided into a plurality of sub-frames and each of the sub-frames includes a reset period, an address period and a sustain period, comprising the steps of:

accumulating wall charge in the discharge cells, during the reset period, by successively generating a plurality of discharges each duration of which is limited, so that stable data write operation is performed during the address period;

erasing at least a part of the accumulated wall charge during the reset period; and

addressing at least a part of said discharge cells by applying data pulses to at least a part of said electrodes to enable selective discharge of said discharge cells

according to said image information during the address period.

10. An Alternating Current (AC) Plasma Display Panel (PDP) including a plurality of discharge cells each of which has a scan electrode, a sustain electrode and an address electrode by applying drive signals to said electrodes, in which, in order to display image information on the AC PDP, one frame of the image information is divided into a plurality of sub-frames and each of the sub-frames includes a reset period, an address period and a sustain period, the AC plasma display panel further comprising:

means for applying a drive signal including a plurality of successive short pulses during the reset period;

means for addressing at least a part of said discharge cells by applying data pulses to at least a part of said electrodes to enable selective discharge of said discharge cells according to said image information during the address period;

wherein, during the reset period, said plurality of short pulses form a plurality of discharges each duration of which is limited; and

wherein a standardized wall charge is formed in each of the discharge cells due to the plurality of discharges so that the selective discharge is easily generated by application of data pulses during the address period.

11. The AC plasma display panel as set forth in claim 10, wherein a magnitude of the wall charge is controlled by controlling the heights, and/or widths and/or periods of the short pulses.

12. The AC plasma display panel as set forth in claim 10, wherein each of the discharges due to the short pulses is generated in the duration time of each of the short pulses and turned off by falling of the each of the short pulses so that the wall charge is accumulated in the discharge cells.

13. The AC plasma display panel as set forth in claim 10, wherein each of the discharges due to the short pulses is generated in the interval of each of the short pulses and turned off by rising of the each of the short pulses so that at least a part of wall charge is erased in the discharge cells.

14. The AC plasma display panel as set forth in claim 10, wherein the short pulses are applied to the scan electrodes of the AC PDP.

15. The AC plasma display panel as set forth in claim 10, wherein, the drive signal during the reset period includes a plurality of short pulses superposed upon a bias voltage increasing or decreasing with time.

16. The AC plasma display panel as set forth in claim 10, wherein, the drive signal during the reset period includes a plurality of short pulses superposed upon a staircase waveform increasing or decreasing with time.

17. An Alternating Current (AC) Plasma Display Panel (PDP) including a plurality of discharge cells each of which has a scan electrode, a sustain electrode and an address electrode by applying drive signals to said

electrodes, in which, in order to display image information on the AC PDP, one frame of the image information is divided into a plurality of sub-frames and each of the sub-frames includes a reset period, an address period and a sustain period, the AC plasma display panel  
5 further comprising:

means for accumulating wall charge in the discharge cells during the reset period;

means for erasing at least a part of the accumulated  
10 wall charge, during the reset period, by successively generating a plurality of discharges each duration of which is limited, so that stable data write operation is performed during the address period; and

means for addressing at least a part of said  
15 discharge cells by applying data pulses to at least a part of said electrodes to enable selective discharge of said discharge cells according to said image information during the address period.

20 18. An Alternating Current (AC) Plasma Display Panel (PDP) including a plurality of discharge cells each of which has a scan electrode, a sustain electrode and an address electrode by applying drive signals to said electrodes, in which, in order to display image  
25 information on the AC PDP, one frame of the image information is divided into a plurality of sub-frames and each of the sub-frames includes a reset period, an address period and a sustain period, the AC plasma display panel further comprising:

30 means for accumulating wall charge in the discharge cells, during the reset period, by successively generating a plurality of discharges each duration of which is limited, so that stable data write operation is

performed during the address period;

means for erasing at least a part of the accumulated wall charge during the reset period; and

means for addressing at least a part of said  
5 discharge cells by applying data pulses to at least a part  
of said electrodes to enable selective discharge of said  
discharge cells according to said image information during  
the address period.